

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-286558

(43)Date of publication of application : 17.12.1991

(51)Int.Cl.

H01L 23/29
H01L 23/50

(21)Application number : 02-088978

(71)Applicant : HITACHI LTD
HITACHI TOBU SEMICONDUCTOR LTD

(22)Date of filing : 02.04.1990

(72)Inventor : OKADA SUMIO
SHIMIZU KAZUO
HOSHI AKIRO
SATO YUKIHIRO

(54) SEMICONDUCTOR DEVICE AND ITS MANUFACTURE AND LEAD FRAME USED FOR IT

(57)Abstract:

PURPOSE: To prevent productivity from being reduced and enable cooling property to be enhanced by allowing a cooling fin which protrudes at an outside of a resin-sealing package to be connected to a cooling fin lead in one piece and burying one part of a heat sink into a resin-sealing package at an end face opposite to a semiconductor pellet bonding end face of a tab for achieving mechanical connection to the cooling fin lead.

CONSTITUTION: A cooling fin 8 is connected to a tab 10 thermally in one piece and a heat sink 14 is placed closer to the tab and is buried in a resin-sealing package 18 so that heat can be radiated from both the cooling fin and the heat sink, thus enhancing cooling performance drastically. Also, since the heat sink can be connected to a cooling fin lead 7 which is connected to the tab within the resin-sealing package, an assembly device for performing each operation for a lead frame including the tab and cooling fin lead can be shared with conventional ones.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office